



# SLOVENSKI STANDARD SIST EN 13108-8:2016

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Nadomešča:  
SIST EN 13108-8:2006

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**Bitumenske zmesi - Specifikacije materialov - 8. del: Asfaltni granulat**

Bituminous mixtures - Material specifications - Part 8: Reclaimed asphalt

Asphaltmischgut - Mischgutanforderungen - Teil 8: Ausbauasphalt

Mélanges bitumineux - Spécifications pour le matériau - Partie 8: Agrégats d'enrobés  
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**ICS:**

93.080.20      Materiali za gradnjo cest      Road construction materials

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN 13108-8**

June 2016

ICS 93.080.20

Supersedes EN 13108-8:2005

English Version

**Bituminous mixtures - Material specifications - Part 8:  
Reclaimed asphalt**

Mélanges bitumineux - Spécifications pour le matériau  
- Partie 8: Agrégats d'enrobés

Asphaltmischgut - Mischgutanforderungen - Teil 8:  
Ausbauasphalt

This European Standard was approved by CEN on 27 February 2016.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

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## European foreword

This document (EN 13108-8:2016) has been prepared by Technical Committee CEN/TC 227 “Road materials”, the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by December 2016, and conflicting national standards shall be withdrawn at the latest by March 2018.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 13108-8:2005.

Compared with EN 13108-8:2005, the following changes have been made:

- a) update for consistency with other parts of EN 13108 series and CPR requirements;
- b) introduction of term “site-won asphalt” and differentiation from feedstock;
- c) note exclusion of contaminated materials;
- d) new Table 1 for minimum test frequencies for feedstock;
- e) enhanced requirements for traceability of delivered feedstock.

This European Standard is one of a series as listed below:

- EN 13108-1, *Bituminous mixtures — Material specifications — Part 1: Asphalt Concrete*
- EN 13108-2, *Bituminous mixtures — Material specifications — Part 2: Asphalt Concrete for Very Thin Layers (BBTM)*
- EN 13108-3, *Bituminous mixtures — Material specifications — Part 3: Soft Asphalt*
- EN 13108-4, *Bituminous mixtures — Material specifications — Part 4: Hot Rolled Asphalt*
- EN 13108-5, *Bituminous mixtures — Material specifications — Part 5: Stone Mastic Asphalt*
- EN 13108-6, *Bituminous mixtures — Material specifications — Part 6: Mastic Asphalt*
- EN 13108-7, *Bituminous mixtures — Material specifications — Part 7: Porous Asphalt*
- EN 13108-8, *Bituminous mixtures — Material specifications — Part 8: Reclaimed Asphalt*
- EN 13108-9, *Bituminous mixtures — Material specifications — Part 9: Asphalt for Ultra-Thin Layer (AUTL)*
- EN 13108-20, *Bituminous mixtures — Material specifications — Part 20: Type Testing*
- EN 13108-21, *Bituminous mixtures — Material specifications — Part 21: Factory Production Control*

**EN 13108-8:2016 (E)**

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

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## Introduction

The use of recycling in asphalt production makes it necessary to specify reclaimed asphalt as a constituent material in a way similar to that of aggregates and binders. In the asphalt product standards EN 13108-1 up to and including EN 13108-7 and EN 13108-9 the use of reclaimed asphalt is permitted with requirements related to the percentage addition.

Site-won asphalt comprises asphalt taken by milling of asphalt road layers, slabs ripped up from asphalt pavements and asphalt from reject and surplus production.

The processing of site-won asphalt results in reclaimed asphalt, suitable and ready to be used as constituent material for asphalt, after being tested, assessed and classified according to this standard. Reclaimed asphalt (RA) may be used as a constituent material for bituminous mixtures manufactured in an asphalt plant, in accordance with the specifications for those mixtures.

This European Standard contains requirements for reclaimed asphalt with respect to binder and aggregate properties and foreign matter that apply in all cases of usage of reclaimed asphalt. Additionally, this European Standard indicates which properties of the reclaimed asphalt and its constituent materials need to be declared and documented if a description of a feedstock is necessary.

Since the requirements for the asphalt mixtures are the same for mixtures with and without reclaimed asphalt, a set of properties of the reclaimed asphalt are of importance. The particle size and properties of the aggregate, the binder content, the properties of the binder and foreign matter in the reclaimed asphalt are relevant to the quality of the product, i.e. the fresh asphalt in which it is mixed. The level of homogeneity of the material in practice determines the maximum amount of reclaimed asphalt that may be used.

The size of the particles of asphalt in the reclaimed asphalt, which may range from large lumps to finely milled material, is relevant only to the process to be used to mix into the fresh asphalt.

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**EN 13108-8:2016 (E)****1 Scope**

This European Standard specifies requirements for the classification and description of reclaimed asphalt as a constituent material for asphalt mixtures. It is not a standard for compliance.

This European Standard only specifies reclaimed asphalt with bituminous binders, such as: paving grade bitumen, modified bitumen or hard grade bitumen. Reclaimed asphalt contaminated with coal tar or other additives or components above hazardous levels is not covered by this standard and will need to be considered under Member State Environmental, and Health and Safety Regulations.

**2 Normative references**

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 932-1, *Tests for general properties of aggregates — Part 1: Methods for sampling*

EN 933-1, *Tests for geometrical properties of aggregates — Part 1: Determination of particle size distribution — Sieving method*

EN 1426, *Bitumen and bituminous binders — Determination of needle penetration*

EN 1427, *Bitumen and bituminous binders — Determination of the softening point — Ring and Ball method*

EN 12596, *Bitumen and bituminous binders — Determination of dynamic viscosity by vacuum capillary*

EN 12697-1, *Bituminous mixtures — Test methods for hot mix asphalt — Part 1: Soluble binder content*

EN 12697-2, *Bituminous mixtures — Test methods — Part 2: Determination of particle size distribution*

EN 12697-3, *Bituminous mixtures — Test methods for hot mix asphalt — Part 3: Bitumen recovery: Rotary evaporator*

EN 12697-4, *Bituminous mixtures — Test methods — Part 4: Bitumen recovery: Fractionating column*

EN 12697-42, *Bituminous mixtures — Test methods for hot mix asphalt — Part 42: Amount of foreign matter in reclaimed asphalt*

EN 13043, *Aggregates for bituminous mixtures and surface treatments for roads, airfields and other trafficked areas*

**3 Terms, definitions, symbols and abbreviations****3.1 Terms and definitions**

For the purpose of this document, the following terms and definitions apply.

**3.1.1****asphalt**

homogenous mixture typically of coarse and fine aggregates, filler aggregate and bituminous binder which is used in the construction of a pavement



Note 1 to entry: The asphalt may include one or more additives to enhance the initial laying characteristics, performance or appearance of the mixture, but it is often not possible to identify and differentiate all specific additives in site-won asphalt.

### 3.1.2

#### **site-won asphalt**

the material to be recycled, in the form of milled asphalt road layers or as slabs ripped up from asphalt pavements, or being asphalt from reject, surplus or failing production

Note 1 to entry: These materials will require assessment and often processing before being suitable as a constituent material.

### 3.1.3

#### **reclaimed asphalt**

##### **RA**

the processed site-won asphalt, suitable and ready to be used as constituent material for asphalt, after being tested, assessed and classified according to this standard

Note 1 to entry: Processing can include one or more of: milling, crushing, sieving (screening), blending, etc.

### 3.1.4

#### **feedstock of reclaimed asphalt**

quantity of reclaimed asphalt (according to 3.1.3) with classified / declared properties, suitable and ready to be used as constituent material for the manufacturing of asphalt mixtures, being either:

- reclaimed asphalt used for a special purpose or reclaimed asphalt from special asphalt mixtures with specific properties (e.g. PSV, aggregate type, etc.); or
- reclaimed asphalt in a stockpile which is added to and used of, on a regular basis, as long as the requirements of Clause 5 and properties of the final asphalt mixture are observed

Note 1 to entry: The latter is also called the “general” feedstock, while the former may need additional description by the manufacturer.

Note 2 to entry: When the properties of the reclaimed asphalt in the general feedstock change to such an extent that the reclaimed asphalt as constituent material is not conforming to the reclaimed asphalt as documented in the Type Test, EN 13108-20 requires a new Type Test.

Note 3 to entry: Feedstocks will have been assessed and they consist only of reclaimed asphalt according to 3.1.3.

### 3.1.5

#### **aggregate size**

designation of the size of the aggregate in the reclaimed asphalt in terms of lower ( $d$ ) and upper ( $D$ ) sieve sizes, expressed as  $d/D$

Note 1 to entry: For reclaimed asphalt,  $d$  will almost invariably be 0.

### 3.1.6

#### **particle size of reclaimed asphalt**

maximum size of the pieces of asphalt in the reclaimed material, expressed as a sieve size ( $U$ )